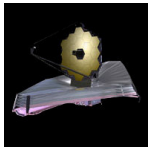

4475 - NIRISS Stability Monitoring

Cycle: 2, Proposal Category: CAL/NIRISS

INVESTIGATORS

Name	*Institution*
Dr. Kevin Volk (PI) (CSA Member)	**Space Telescope Science Institute - CSA - JWST**
Dr. Andre Martel (CoI)	Space Telescope Science Institute
Dr. Paul Goudfrooij (CoI)	Space Telescope Science Institute

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1		NIRISS External Calibration	(1) ASTROMETRIC-FIELD
	3		NIRISS External Calibration	(1) ASTROMETRIC-FIELD
	5		NIRISS External Calibration	(1) ASTROMETRIC-FIELD
	7		NIRISS External Calibration	(1) ASTROMETRIC-FIELD
	9		NIRISS External Calibration	(1) ASTROMETRIC-FIELD
	11		NIRISS External Calibration	(1) ASTROMETRIC-FIELD

ABSTRACT

We request bi-monthly observations of the LMC astrometric field for monitoring of the NIRISS photometric stability and as a quick check on the astrometric stability of the instrument. This is a continuation of cycle 1 calibation program 1515.

This calibration program may change in response to system developments and the final Cycle 2 science program.

OBSERVING DESCRIPTION

We will observe the same position near the south ecliptic pole at one month intervals to assess the stability of the NIRISS detector over time. Inter-comparison of the stellar brightness values over time should show any long term changes in the NIRISS detector response or the overall system response. While some of the stars in the field will be variable, we should be able to eliminate these and make measurements on other stars within the field of view.

The preferred target for this observation is the LMC astrometric field. This is a continuation of program 1515 in cycle 1 calibration.

TIMING CONSTRAINTS

We request observations at approximately 2 month intervals for the program. Each observation is given a 3 week window, and there are 5-week gaps between observations. This will prevent observations from being scheduled too close together in time. If for some reason an observation is not scheduled in the original time window there should be plenty of options for rescheduling the observations without coming too close to the other observations.

The windows assume a start of cycle 2 on 1 July 2023, but can be shifted as needed.

Proposal 4475 - Targets - NIRISS Stability Monitoring

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ASTROMETRIC-FIELD	RA: 05 21 56.5000 (80.4854167d) Dec: -69 29 54.10 (-69.49836d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Astrometric]
Extended=NO

Observation

Proposal 4475, Observation 1

Mon May 01 13:00:53 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRISS External Calibration

Diagnostics

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ASTROMETRIC-FIELD	RA: 05 21 56.5000 (80.4854167d) Dec: -69 29 54.10 (-69.49836d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Astrometric]
Extended=NO

Acquisition

#	Target
1	NONE

Template

Pointing Type
PRIME

Dithers

#	Pattern Type	Image Dithers	Primary Dithers	Subpixel Positions	Pattern Size
1	IMAGING	4			

Spectral Elements

#	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FULL	DEFAULT APERTURE	CLEAR	F200W	NISRAPID	12	1	4	4	558.312	

Special Requirements	Between Dates 01-JUL-2023 and 21-JUL-2023

Observation

Proposal 4475, Observation 3

Mon May 01 13:00:53 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRISS External Calibration

Diagnostics

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ASTROMETRIC-FIELD	RA: 05 21 56.5000 (80.4854167d) Dec: -69 29 54.10 (-69.49836d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Astrometric]
Extended=NO

Acquisition

#	Target
1	NONE

Template

Pointing Type
PRIME

Dithers

#	Pattern Type	Image Dithers	Primary Dithers	Subpixel Positions	Pattern Size
1	IMAGING	4			

Spectral Elements

#	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FULL	DEFAULT APERTURE	CLEAR	F200W	NISRAPID	12	1	4	4	558.312	

Special Requirements	Between Dates 01-SEP-2023 and 21-SEP-2023

Observation

Proposal 4475, Observation 5

Mon May 01 13:00:53 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRISS External Calibration

Diagnostics

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ASTROMETRIC-FIELD	RA: 05 21 56.5000 (80.4854167d) Dec: -69 29 54.10 (-69.49836d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Astrometric]
Extended=NO

Acquisition

#	Target
1	NONE

Template

Pointing Type
PRIME

Dithers

#	Pattern Type	Image Dithers	Primary Dithers	Subpixel Positions	Pattern Size
1	IMAGING	4			

Spectral Elements

#	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FULL	DEFAULT APERTURE	CLEAR	F200W	NISRAPID	12	1	4	4	558.312	

Special Requirements	Between Dates 01-NOV-2023 and 21-NOV-2023

Observation

Proposal 4475, Observation 7

Mon May 01 13:00:53 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRISS External Calibration

Diagnostics

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ASTROMETRIC-FIELD	RA: 05 21 56.5000 (80.4854167d) Dec: -69 29 54.10 (-69.49836d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Astrometric]
Extended=NO

Acquisition

#	Target
1	NONE

Template

Pointing Type
PRIME

Dithers

#	Pattern Type	Image Dithers	Primary Dithers	Subpixel Positions	Pattern Size
1	IMAGING	4			

Spectral Elements

#	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FULL	DEFAULT APERTURE	CLEAR	F200W	NISRAPID	12	1	4	4	558.312	

Special Requirements	Between Dates 01-JAN-2024 and 21-JAN-2024

Observation

Proposal 4475, Observation 9

Mon May 01 13:00:53 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRISS External Calibration

Diagnostics

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ASTROMETRIC-FIELD	RA: 05 21 56.5000 (80.4854167d) Dec: -69 29 54.10 (-69.49836d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Astrometric]
Extended=NO

Acquisition

#	Target
1	NONE

Template

Pointing Type
PRIME

Dithers

#	Pattern Type	Image Dithers	Primary Dithers	Subpixel Positions	Pattern Size
1	IMAGING	4			

Spectral Elements

#	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FULL	DEFAULT APERTURE	CLEAR	F200W	NISRAPID	12	1	4	4	558.312	

Special Requirements	Between Dates 01-MAR-2024 and 21-MAR-2024

Observation

Proposal 4475, Observation 11 Mon May 01 13:00:53 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRISS External Calibration

Diagnostics

(Visit 11:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	ASTROMETRIC-FIELD	RA: 05 21 56.5000 (80.4854167d) Dec: -69 29 54.10 (-69.49836d) Equinox: J2000		

Comments:
Category=Calibration
Description=[Astrometric]
Extended=NO

Acquisition

#	Target
1	NONE

Template

Pointing Type
PRIME

Dithers

#	Pattern Type	Image Dithers	Primary Dithers	Subpixel Positions	Pattern Size
1	IMAGING	4			

Spectral Elements

#	Subarray	Aperture	Filter Wheel	Pupil Wheel	Readout Pattern	Groups/Int	Integrations/Exp	Total Dithers	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FULL	DEFAULT APERTURE	CLEAR	F200W	NISRAPID	12	1	4	4	558.312	

Special Requirements	Between Dates 01-MAY-2024 and 21-MAY-2024